
Driver-assisted measuring and control system

LOGMIT M6

READ THESE
OPERATING AND SAFETY INSTRUCTIONS
CAREFULLY BEFORE USING THE APPLIANCE!

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1. GENERAL

1.1. Purpose

The purpose of this document is to familiarize the user with the Logmit M6 driver-assisted measuring and control system used with harvester heads and base machines from various manufacturers.

By reading and following these instructions, the user can configure the necessary settings before using the system. After that, it is possible to work safely and effectively.

It is therefore important to familiarize yourself with and understand the various features of the Logmit M6 before using it.

NOTE!

Before using the Logmit M6, please also read the operating and safety instructions for your harvester head, base machine and other accessories.

This manual only covers Logmit M6 product.

It is the responsibility of the driver to understand the impact of the various functionalities, equipment and accessories to the base machine. The Logmit M6 system defaults are not directly usable with your devices.

The machine operator is also responsible for maintaining, servicing and recalibrating the system as required. The operator is **always** responsible for the result of the work and the accuracy of the measurements.

Logmit Ab Oy reserves the right to update or change this manual without notice.

1.2. Warnings

The Logmit M6 controls the harvester head, which involves safety risks when working with it. In addition, the complete setup includes also a base machine with its own risks.

Occupational safety must always be considered so that employees, bystanders and equipment can be protected accordingly.

Used improperly, the system can cause property damage, personal injury, or even death.

NOTE!

Before using Logmit M6, familiarize yourself with and comply with the occupational safety laws, regulations and recommendations of your country and region.

Logmit M6 system should only be used for its intended purpose. Any other use is strictly prohibited.

The system should not be used until you have read the latest Operating and Safety Instructions.

TIP

You can find the latest instructions either in the Logmit application or at www.logmit.fi

The system must be installed by a person who has a sufficient understanding of the complete setup and the technology used. The instructions in the installation documents provided by Logmit must be followed. After installation, all equipment should be inspected and tested under safe conditions before use.

The Logmit M6 system should not be used without connecting to the door or seat switch of the base machine. Any faults with those must be rectified immediately and the system must not be used before.

The emergency stop button must always be installed and operational when using the Logmit M6 system. The functionality of this button should be tested regularly before starting work. If a fault is detected, it must be rectified immediately and the system must not be used before.

Always use caution when performing maintenance or adjustment work on the system. Be aware of moving parts and the risk of wedging. The harvester head tilt should always be lowered prior to maintenance work, even when the engine is turned off.

Do not perform any maintenance while the engine is running, if possible. If not, do your best to minimize hazards, eg by pressing the emergency stop button, remove the saw chain and disassemble saw bar from the harvester head before starting maintenance work.

NOTE!

Always turn off the engine and other systems of your machine when leaving the cabin.

Take special care with and near hydraulic and electrical systems.

Watch out for moving parts. Set all moving devices to the home position before going near them.

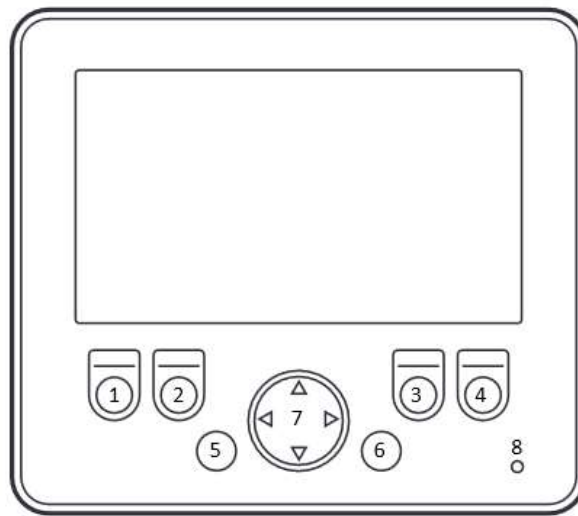
NOTE!

If the base machine is an excavator, farm tractor or similar, always check the safety of the cabin. Cabin glass and other structures may not withstand unexpected stresses as well as a machine originally designed as a forest machine.

The harvester head saw is very efficient. Therefore, always exercise caution when working. Do not position the harvester head so that the saw bar is facing the cabin or people.

Be aware that if the saw chain breaks, a fragment may come off, which may have as much kinetic energy as a bullet, so it may cause injury to people or machines near or far.

2. DISPLAY UNIT



Display Unit has seven keys to operate the device and a LED light.

The keys and light are numbered in the picture and descriptions are following:

#	Description	Function
1	Function key F1	variates per view
2	Function key F2	variates per view
3	Function key F3	variates per view
4	Function key F4	variates per view
5	ESC key	Back to previous menu or view
6	OK key	Main menu / Select
7	Navigation key	Navigation and changing settings
8	LED Light	See table below

The LED light has multiple colors and those indicate different system states:

Colour of LED	Led State	System State
-	no light	no operating voltage
green	blinks once per second	system operates
red	solid	system error

3. HOME SCREEN



The information screens on the home screen tell the driver the most important information at a glance.

Information on Home Screen				
running stem length (cm)		stem diameter (mm)	greasing interval indicator (h)	chain oil indicator (min)
selected tree type	cubic volume	operating voltage		
selected preselect length	stem count	Logmit's hour counter		
Function key		LOGMIT M6	icons	

The function keys **F1-F4** provide easy access to the most common settings and statistics.

Function keys on Home Screen			
F1	F2	F3	F4
Settings	Preselects	Service	M3 (cubics)

3.1. Warnings and service notifications

There are three different red notifications which are shown on the Home Screen.

Emergency STOP or activated door / seat switch Warning



See section "6.2. Emergency Stop" for more details.

Service Notification



See section "4.8. Service" for more details.

Saw bar out Warning



Warning text "Saw" is displayed when the saw bar is out. At that time stem feeding is disabled.

4. MAIN MENU



To access Main Menu, press the **OK** key on the display unit.

Use the navigation key to move between menus / icons. Select the desired menu and press the **OK** key to access it.

Following menus are available in the Main Menu.

Main Menu Index		
Settings	Pump values	Diagnostics
Length Calibration	Diameter Calibration	Preselects
M3 (cubics)	Service	Saw Control

Press the **ESC** key once to access the main menu or press it twice to access the home screen.

4.1. Settings



In the Settings menu, you can change general settings. Use the navigation key to move left or right between settings. The box highlighted with a thicker blue border indicates where the cursor is, that is, what setting you can change.

To change the setting value, press the navigation key up or down.

Holding down the function key **F1** while pressing the navigation key up adds the number specified by the function key to the value. Holding down the **F1** function key while pressing the Navigation key down decreases the value by the number specified by the function key.

The value change does not need to be confirmed separately with the **OK** key, the setting is saved automatically.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

Following settings are configurable from the Main Menu.

Settings Menu Index		
Language	Stump Treatment	Drive Delay
Propo Valve	Braking Distance	Drive Calibration
Backlight	Tilt Down	Tilt up Calibration
Function key functions		

4.1.1. Language

There are three different languages to choose from: Finnish (FI), Swedish (SVE) and English (ENG).
To change the setting value, press up or down arrow on navigation key.

NOTE!

Available languages vary per region.
Contact your reseller or manufacturer to get more information.

4.1.2. Stump Treatment

Stump treatment is activated when this setting is "ON".
The function is automatic when felling a tree if pine or spruce is selected as the tree type.

You can turn off the stump treatment by selecting "OFF".
To change the setting value, press up or down arrow on navigation key.

TIP

See section "5. Button Controllers" for more details how to select a tree type.

4.1.3. Drive Delay

This time value (ms) determines how long the tracks/rollers feeding runs at slow speed before it starts feeding at full speed. This is necessary to be able to search for a suitable stem length with manual feeding.

To change the setting value, press up or down arrow on navigation key.

4.1.4. Propo Valve

If the harvester head has a proportional controlled measuring hydraulic valve, this setting should be set to "ON".

If the harvester head has an on/off controlled hydraulic valve, this setting should be set to "OFF".

To change the setting value, press up or down arrow on navigation key.

4.1.5. Braking Distance

The value of this setting determines how many centimeters (cm) before the preselected length / sawing window the slow feed is switched on. With a shorter braking distance, the harvester head bypasses the sawing window and removes nearby branches, which helps to set off next stem.

To change the setting value, press up or down arrow on navigation key.

The braking distance and drive calibration settings together affect the success of the accurate feed to the sawing window.

NOTE!

Different harvester heads work differently. By experimenting, you will find the right value for your own device.

TIP

See section "4.6. Preselects" for more details about length preselects.

4.1.6. Drive Calibration

Adjust this value to calibrate the appropriate slow feeding speed for the harvester head so that the sawing window is accurately located.

This value must be specified whether the Propo Drive setting is in "ON" or "OFF" mode. Operating values vary depending on the valve manufacturer and type, as well as the harvester head and base machine. Practice has shown that values range from as low as 10 to even 500.

Calibrate the slow feeding speed settings when the hydraulic oil temperature is at normal level and the engine is running on operating RPMs. The pressure settings of the knives and rollers also affect how easily the harvester head is able to find the sawing window.

To change the setting value, press up or down arrow on navigation key.

The drive calibration and braking distance settings together affect the success of the accurate feed to the sawing window.

NOTE!

Different harvester heads work differently. By experimenting, you will find the right value for your own device.

4.1.7. Backlight

Brightness of the screen is adjustable. Depending on the operating conditions, the brightness of the screen should be adjusted accordingly. The adjustment range is 0-100%.

To change the setting value, press up or down arrow on navigation key.

4.1.8. Tilt down

There are three different modes to choose from:

Mode 1 - The tilt is released immediately when sawing starts

Mode 2 - The tilt is released when the saw bar returns home

Mode 3 - The tilt is released by pressing the "Tilt down" button on controller

To change the setting value, press up or down arrow on navigation key.

4.1.9. Tilt up Calibration

This setting adjusts the feed speed when the harvester head is in the tilt up position.

The value is usually very close to the drive calibration setting value.

To change the setting value, press up or down arrow on navigation key.

NOTE!

Different harvester heads work differently. By experimenting, you will find the right value for your own device.

TIP

Save the Settings for yourself for future reference.

You can write them down or take a picture of the screen, for example, on your mobile phone.

4.2. Pump Values



In Pump Values menu you can determine the pump delay, the track/roller and knife settings.

Use the navigation key to move left or right between settings.

To change the setting value, press the navigation key up or down.

Holding down the function key **F1** while pressing the navigation key up adds the number specified by the function key to the value. Holding down the **F1** function key while pressing the Navigation key down decreases the value by the number specified by the function key.

The value change does not need to be confirmed separately with the **OK** key, the setting is saved automatically.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

4.2.1. Tilt up

This value determines how many milliseconds (ms) the pump will be activated after "Open Head / Tilt Up" button has been released.

If the harvester head does not tilt up all the way, adjust this time value (ms) higher. If the pump runs long after the harvester head is up, adjust the value lower.

To change the setting value, press up or down arrow on navigation key.

4.2.2. Open head

This value determines how many milliseconds (ms) the pump will be activated after "Open Head / Tilt Up" button has been released.

If the harvester head does not open all the way, adjust this time value (ms) higher. If the pump runs long after the harvester head has opened, adjust the value lower.

To change the setting value, press up or down arrow on navigation key.

4.2.3. Close knives

This value determines how many milliseconds (ms) the pump will be activated after "Close Head" button has been released.

If the harvester head does not close all the way, adjust this time value (ms) higher. If the pump runs long after the harvester head has closed, adjust the value lower.

To change the setting value, press up or down arrow on navigation key.

4.2.4. Close Tracks/Rollers

This value determines how many milliseconds (ms) the pump will be activated after "Close Head" button has been released.

If the harvester head does not close tracked / wheeled carriers all the way, adjust this time value (ms) higher. If the pump runs long after the harvester head has closed tracked / wheeled carriers, adjust the value lower.

To change the setting value, press up or down arrow on navigation key.

4.2.5. Tracks/Rollers pressure

This value determines the pressure for the tracks or rollers if the harvester head has an adjustable proportional pressure valve. The adjustment range is 5 to 100%.

To change the setting value, press up or down arrow on navigation key.

4.2.6. Knife pressure

This value determines the pressure for the delimiting knives if the harvester head has an adjustable proportional pressure valve. The adjustment range is 5 to 100%.

To change the setting value, press up or down arrow on navigation key.

4.2.7. Pulse opening knife

This value determines the length of the pulse opening in milliseconds (ms). Pulse opening is used to make the start of the stem feeding easier.

To change the setting value, press up or down arrow on navigation key.

4.2.8. Pulse opening back knife

This value determines the length of the pulse opening for the back knife in milliseconds (ms). Pulse opening is used to make the start of the stem feeding easier.

To change the setting value, press up or down arrow on navigation key.

TIP

The setting is visible only if the harvester head is equipped with the back knife.

TIP

Save the Pump Values for yourself for future reference.

You can write them down or take a picture of the screen, for example, on your mobile phone.

4.3. Diagnostics



The Diagnostics feature helps you troubleshoot electrical system errors.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

Control Unit in the Harvester Head

"A in" are length, thickness and other sensor input signals

"A out" are outgoing signal to the harvester head's valves

Central Unit in the Cabin

"B in" are button functions

"B out" are activated pump outputs and any other signals to the harvester head

If necessary, contact your dealer or manufacturer for more detailed diagnostic information.

4.4. Length Calibration



The purpose of Length calibration is to adjust the control system and harvester head to work together in the best possible way. As weather conditions, wood species and their properties may vary greatly, recalibration should always be performed as needed.

The stem used for calibration should be as branchless as possible and the thickness of the stem should be more than 100 mm.

Display Information		
Pulses	Length	Cal. value
measured number of pulses	length measured by the harvester head	value to be changed / factor for calibration

To change the setting value, press the navigation key up or down.

Holding down the function key **F1** while pressing the navigation key up adds the number specified by the function key to the value. Holding down the **F1** function key while pressing the Navigation key down decreases the value by the number specified by the function key.

The value change does not need to be confirmed separately with the **OK** key, the setting is saved automatically.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

NOTE!

Please consider occupational safety in the following measures.

Calibration is performed as follows:

- 1) Feed the stem about five meters.
- 2) Saw a small cut.
- 3) Measure the actual length of the stem in centimeters (cm) with a measuring tape.
- 4) Adjust the value in the "Cal. value" box by pressing the navigation key up or down so that the reading in the "Length" box corresponds to the measured length.
- 5) Repeat steps 1-4 a few times for best accuracy.

Perform the calibration again if the conditions variate.

TIP

By defining the length a little bit shorter than it actually is, you will have a small safety margin against sawing too short.

NOTE!

Length Calibration can be performed only in this window.
In other views sawing will reset the length value on display.

TIP

Save the Length Calibration settings for yourself for future reference.

You can write them down or take a picture of the screen, for example, on your mobile phone.

4.5. Diameter



The purpose of Diameter calibration is to adjust the control system and the harvester head to work together in the best possible way when it comes to stem diameter.

Use the navigation key to move left or right between settings.

To change the setting value, press the navigation key up or down.

Holding down the function key **F1** while pressing the navigation key up adds the number specified by the function key to the value. Holding down the **F1** function key while pressing the Navigation key down decreases the value by the number specified by the function key.

The value change does not need to be confirmed separately with the **OK** key, the setting is saved automatically.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

4.5.1. Diameter calibration

NOTE!

Please consider occupational safety in the following measures.

Calibration is performed as follows:

- 1) Measure the actual distance between the tracks / rollers in centimeters (cm) when the harvester head is fully open and fully closed.

NOTE!

In some harvester heads, the diameter is measured using a delimiting knives, in which case their distance must be measured in the fully open and closed positions.

- 2) Use the navigation key to move to "Max" and enter the actual maximum distance between the tracks / rollers in centimeters (cm) when the harvester head is fully open.
- 3) Use the navigation key to move to "Min" and enter the actual minimum distance (cm) between the tracks / rollers when the harvester head is fully closed.
- 4) Use the navigation key to move to "Set" and press **OK**.
- 5) Press **F1 + F4** to confirm the change in the basic curve.

The basic diameter calibration is now done. Next, you need to fine-tune the curve.

4.5.2. Fine-tuning the curve

NOTE!

Please consider occupational safety in the following measures.

Fine-tuning is performed as follows:

- 1) Measure the actual diameter of the stem in millimeters (mm) with a measuring tape from the cutting point of the harvester head. And note it.
- 2) Look the Diameter value measured by the harvester head in the "Dia" box on the right side of the screen.
- 3) Use the navigation key to find the nearest reading to the "Dia" box's number on the value scale at the top of the screen. Change that value to match the measured diameter of the stem.

The value highlighted by the yellow box can be changed. The value in the "Dia" box on the right side of the screen will change at the same time as you change the value scale.

If the change was significant adjust also values on both sides to make the curve logical.

NOTE!

The new fine-tuning values on the scale / curve are saved **automatically**.

You should not press on the Set when making fine-tuning.

EXAMPLE

If the measured diameter of the tree is 140 mm, but 130 mm according to the "Dia" value on the screen, go to the value scale / dot at the top of the screen that is closest to 130. Then increase the value / move dot upwards by pressing the navigation key up until the "Dia" value on the right side of the display is 140.
If the change was significant adjust also values on both sides to make the curve logical.

- 4) Repeat steps 1-3 for several values / points at different points on the curve.

The more points you calibrate, the more accurate the system becomes.

- 5) Adjust the unmeasured points so that the curve becomes logical, following the trend between the adjusted points.
- 6) Press the **ESC** key to exit the menu.

TIP

Save the Diameter settings for yourself for future reference.

You can write them down or take a picture of the screen, for example, on your mobile phone.

4.6. Preselects



The purpose with Preselects is to define ten preselected sawing lengths for your use. The unit of length is centimeter (cm). Preselects are directly available on the home screen and can be selected by using button controller.

When holding down the "Feed Forward" button on the controller, the measuring system will feed the stem by the selected length. The top of the Home Screen turns green when it is reached. Then the operator can saw it to the desired length which resets the length value on the Home Screen.

To change the setting value:

- 1) Select which length to change by pressing the navigation key to right or left. The box highlighted with a thicker blue border indicates where the cursor is, that is, what setting you can change.
- 2) Edit the value by pressing the navigation key to up or down. Holding down the function key **F1** while pressing the navigation key up increases the value by the number specified by the function key. Holding down the function while pressing the navigation key down decreases the value by the number.

New values are saved automatically.

- 3) Exit menu by pressing **ESC** key

TIP

The feeding of the stem always stops at the preselected length. If you want to saw a free stem length, set one preselection length to, for example, 999 cm. Using that preselection, you can manually search for any dimension less than ten meters.

TIP

See section "5. Button Controllers" for more details how to select the Preselect length.

4.7. M3 (cubics)



On this window you will see statistics on sawn trees and volumes.

Top row

Stem (pcs) is the total number of stems sawn.

Average volume (l) is the calculated average volume of the all timber harvested. The unit is the liter (l), which corresponds to a cubic decimeter (dm³).

Total (m³) is the cubic volume of all sawn trees.

Bottom rows

Cubic volume (m³) per sawn tree type.

4.7.1. Resetting Statistics

All counters can be set to zeros at once as follows:

- 1) Press "RESET" (F1) + F4 to reset values.

4.7.2. Changing the value of the stem counter

One is always added to the value of the stem counter when the "Tilt Up" and "Sawing" buttons are pressed sequentially. Sometimes that is needed during the maintenance. To have the correct average volume you need to adjust the stem counter.

The value of the stem counter can be changed as follows:

- 1) Press the navigation key up to add to the counter or down to subtract from the counter.

The numbers on other counters cannot be changed.

TIP

See section "5. Button Controllers" for more details how to use different functions.

4.8. Service



On Service menu you can set the greasing interval for your harvester head in hours (h) and the chain oil consumption in minutes (min) to follow up those and to get "Service!" notification on the Home Screen.

The software version numbers of the display, module A (harvester head) and module B (cabin) can also be found on the right side of the window.

In addition, the lower bar shows the model of the harvester head in use.

The value change does not need to be confirmed separately with the **OK** key, the setting is saved automatically.

To return to the main menu, press the **ESC** key once or press it twice to return to the home screen.

4.8.1. Greasing Interval Setting and Reset

You can set the greasing interval to suit your harvester head. The unit of time is an hour (h).

The value of the greasing interval can be changed as follows:

- 1) Move to "Greasing interval (h)" by pressing the navigation key left or right. A yellow box indicates a value that can be changed.
- 2) To change the value, press the navigation key up to increase the value or down to decrease the value.



If the value is set to 10, then after the control system has been used for 10 hours with the harvester head, you will receive the red "Service!" notification on the Home Screen.

After greasing the harvester head / loader, return to this menu, reset the service reminder by using the navigation key to select the "Greasing interval (h)" setting and press "**RESET**" (**F1**) to receive a new notification after the set time.

4.8.2. Chain Oil Meter Calibration

You can set the Chain Oil consumption meter to suit your harvester head. The unit of time is a minute (min). When the time runs out you will get the "Service!" notification to the Home Screen.

To calibrate the meter, you need information on the volume of the chain oil tank and the average oil consumption of your harvester head. If you do not know the guide value, you can find out for how many minutes of sawing one oil tank lasts.

In practice, the meter tells you how long the "Sawing" button has been held down. In other words the value decreases from the specified value toward zero when sawing.

NOTE!

Use the chain oil meter as a reference only. Especially during calibration, but also after it, use other detection tools and methods to monitor the oil level.

If you notice the harvester head behaving as if the chain oil is running out, stop sawing even if the indicator seems to have time left and check the actual situation. If necessary, recalibrate the meter.

Use too short time rather than too long.

NOTE!

Please consider occupational safety in the following measures.

One way to determine the amount of time is to do the following:

- 1) Fill the chain oil tank to the full.
- 2) Then set "Chain Oil (min)" to 100 and exit the menu to the home screen.
- 3) Start work.
- 4) After felling the trees for a suitable time, refill the tank by measuring the amount of filling.
- 5) View the value of the meter and calculate how many minutes have elapsed from the meter, ie decreased from 100 minutes. Now calculate the oil consumption (liters per minute) using the amount of filling and time and how long it will take to empty the entire tank.
- 6) Now set the calculated number of minutes to "Chain oil (min)" and exit the menu to the home screen.
- 7) Observe how well the calculated value corresponds to reality and change the value if necessary.

There are other ways to find out and they can be used at your own discretion.

Use the navigation key to select the "Chain Oil" value and press **"RESET" (F1)** to restart countdown from the specified value. And to remove "Service!" notification from the Home Screen.

4.9. Saw Control



On Saw Control menu you can adjust the settings for through sawing, saw pulse and saw delay.

NOTE!

The diameter calibration must be performed before specifying the saw control settings. Calibration instructions can be found in section "4.5. Diameter".

If you hold down the "Close Head" button while pressing the "Sawing" button, you will bypass the Saw Control.

TIP

See section "5. Button Controllers" for more details how to use different functions.

4.9.1. Saw pulses

During sawing, the measuring system receives pulses from the saw bar sensors. That number reads on the screen "Saw pulse" box.

The first step is to determine the number of pulses from the "Saw home" position to the saw bar fully out position. There are several ways to do this, the results of which can vary depending on how well the pulse sensor is able to measure the movements of a fast moving saw bar.

NOTE!

Please consider occupational safety in the following measures.

Method 1:

- 1) Turn base machine's engine to idle and keep the power on at the harvester head.
- 2) Press and hold the "Close Head" and "Sawing" buttons until the saw bar is fully out.
- 3) Note the number of pulses displayed in the "Saw Pulses" box.
- 4) Release buttons. And use the navigation key to move to the "Cal. value" box and set the noted value when the saw bar was fully out.

NOTE!

Please consider occupational safety in the following measures.

Method 2:

- 1) Turn off the base machine's engine, but keep the power on at the harvester head.
- 2) Tilt the harvester head down.
- 3) Manually pull the saw bar out from the "Saw home" position until it is fully out.
- 4) The number of pulses is now displayed as a value in the "Saw Pulses" box.
- 5) Use the navigation key to move to the "Cal. value" box and set the same value as "Saw pulses".
- 6) Saw bar returns to "Saw home" position automatically when you start the engine.

TIP

If one saw sensor breaks, through-sawing will continue to work after calibrating the saw pulses amount again. The number of pulses is likely to be halved.

If there are no pulses during sawing, the saw sensors are out of order.

4.9.2. Through Sawing Settings

The through-cut settings are configured as follows:

- 1) The "Min" value configures sawing of small diameter wood. It is not a unit of measurement, it is just a value. If the wood is not completely cut through, the value should be increased. If it is sawed over, the value should be reduced.

To change the setting value, press the navigation key up or down.

Holding down the function key **F1** while pressing the navigation key up adds the number specified by the function key to the value. Holding down the **F1** function key while pressing the Navigation key down decreases the value by the number specified by the function key.

- 2) The “Mid” value configures sawing of medium diameter wood. If the wood is not completely cut through, the value should be increase. If it is sawed over, the value should be reduced.
- 3) The “Max” value configures sawing of large diameter wood. If the wood is not completely cut through, the value should be increase. If it is sawed over, the value should be reduced.

This feature only works when the diameter is set and calibrated correctly and the saw sensors A and/or B are in good condition. The saw sensors work properly when the indicator lights on the screen change from red to green.

4.9.3. Saw Control ON/OFF

Saw control is ON by default. If you do not want to use the saw control, you can turn it OFF. While you want to use the feature, you can turn it back ON.

To switch the saw control ON or OFF, proceed as follows:

- 1) Use the navigation key to move to the "Saw control" setting.
- 2) Press the navigation key up or down to change the setting to ON or OFF.

4.9.4. Saw delay Setting

This value defines how many milliseconds (ms) the saw will run before the saw bar leaves its home position.

If the value is too low, the chain will not get enough speed before it reaches the tree.

To change the Saw delay setting, proceed as follows:

- 1) Use the navigation key to move to the "Saw delay" setting.
- 2) Press the navigation key up or down to change the time value.

4.9.5. Saw oil Setting

Saw oil setting is visible only if the measuring system is configured for Logmax harvester head. The setting replaces Saw delay setting.

The value defines how many milliseconds (ms) there are between saw oil impulses.

To change the Saw oil setting, proceed as follows:

- 1) Use the navigation key to move to the "Saw oil" setting.
- 2) Press the navigation key up or down to change the time value.

TIP

Save the Saw Control settings for yourself for future reference.

You can write them down or take a picture of the screen, for example, on your mobile phone.

5. BUTTON CONTROLLERS



Button controllers control the functions of the harvester head.

VERTICAL HANDLES 7 + 5 / BUTTON FUNCTIONS

Left Button Set:

Open Head / Tilt up	Head / Tilt down
Close Head	Preselect length +
Open Knives	Preselect length -
Open Tracks/Rollers	

Right Button Set:

Rotator left	Rotator right
Feed Backwards	Feed Forward
	Sawing

VERTICAL HANDLES 5 + 5 / BUTTON FUNCTIONS

Left Button Set:

Open Head / Tilt up	Head / Tilt down
Close Head	Open Tracks/Rollers
Open Knives	

Right Button Set:

Preselect length -	Preselect length +
Feed Backwards	Feed Forward
	Sawing

Rotator control by base machine.

MINI HANDLES 4 + 4 / BUTTON FUNCTIONS

Left Button Set:	Right Button Set:
Preselect length +	Feed Forward
Preselect length -	Feed Backward
Open Knives	Sawing
Open Tracks/Rollers	Head / Tilt down

Thumb Rocker functions: "Open Head / Tilt up" ja "Close Head".
Rotator control by base machine.

5.1. Explanation of Button functions

After the emergency stop, the control system is activated by pressing the "Open Head / Tilt up" or "Close Head" button, depending on the harvester head in use.

When you press the "Open Head / Tilt up" button quickly, the harvester head opens. When you hold it down, the harvester head also tilts up.

If you hold down the "Open Head / Tilt up" button while pressing the "Sawing" button, you can saw the harvester head open without tilting it down.

This function is useful when you want to fell a small tree or shrub, for example, without closing the harvester head.

To select the tree type, hold down the "Open Head / Tilt up" or "Close Head" button and select the tree type with the "Feed Forward" or "Feed Backwards" keys. Depending on whether you have already caught a tree, or are just selecting a tree to fell, you will use either the "Head open" or "Head closed" button. Tree types are: Spruce, Pine, Birch and Other.

If you hold down the "Close Head" button while pressing the "Sawing" button, you can saw so that the harvester head does not tilt down. Finally, turn the tree in the desired direction and fell it by pressing the "Head / Tilt down" button.

This function is therefore useful when you want to fell a tree in a certain direction.

If you hold down the "Close Head" button while pressing the "Sawing" button, you will bypass the Saw Control.

Pressing the "Open Knives" button opens the knives and remains them open until the button is released.

Pressing the "Tracks / Rollers Open" button opens the tracks or rollers and remains them open until the button is released.

"Preselect length +" selects next longer preselection length from the specified lengths.

"Preselect length -" selects next shorter preselection length from the specified lengths.

TIP

See section "4.6. Preselects" for more details how to define Preselect lengths.

Press the "Rotator left" button to turn the harvester head to the left.

Press the "Rotator right" button to turn the harvester head to the right.

Holding down the "Feed Forward" button stops the harvester head at the saw window of the preselected length. If you want to saw a longer stem than the preselection length, you will not be able to do so without selecting a longer preselection length. If you want to saw a free-length stem, then set a long enough preselection in advance.

Pressing the "Feed Backward" button reverse feeds the harvester head.

TIP

If your harvester head is a Keto Forst Xtreme with a lower blade, you can choose to use it or hide it inside the machine when it is not used. This is selected by pressing the "Open Knives" button for 3 seconds.

6. ELECTRICAL SYSTEM

6.1. Requirements

A separate ON / OFF switch must be installed in the electrical system of the base machine for the Logmit system.

Do not turn on the control system until you have started the base machine's engine.

The Logmit system works in both 24 volt (V) and 12 volt systems.

NOTE!

The Logmit system supplies the same voltage to both the harvester head and the pump control as its own operating voltage.

Generally, the operating voltage of the harvester heads is 24 volts (V). In some cases, it can be 12 volts.

NOTE!

If the electrical system of the base machine is 12 volts (V) and the harvester head is 24 volts (V), then a high-quality 12 / 24V DC / DC voltage converter must be used, which supplies 12-15 amps (A).

The pump control cable supplies control current to the pump / valve, which opens the oil flow to the harvester head.

NOTE!

If the base machine's electrical system is 12 volts (V), the pump control is also 12 volts (V).

If 24 volts (V) are applied to the control system to make it compatible with the 24 volt harvester head, the control system will also supply 24 volts to the pump control.

The pump control voltage must therefore be reduced, or the pump must be controlled by a relay, for example, if 24 volts (V) are applied to the measuring system and the electrical system of the chassis is 12 volts (V).

The excitation current is activated as soon as you press any button in the controller.

6.2. Emergency Stop



The Emergency Stop button must be positioned in the instrument panel in such a way that it can be quickly pressed down in an emergency!

Base machine's door / chair switches must also be used and connected to Logmit control system.



If one of those is activated there will be the red "STOP!" warning on the Home Screen.

After clearing the reason for the emergency stop, the control system is activated by pressing either "Open Head / Tilt up" or "Close Head" button.

NOTE!

Test safety features regularly.

If you notice a problem, stop using the system immediately and correct the situation before the next use.

6.3. Connectors in Central Unit



If the product you purchased includes a ready-made control unit to be installed in the base machine's cabin, then it has six connectors.

The connectors and the cables to be connected to them are as follows:

Connector	Cable
Pumps	Pump Control Cable
Display	Display Cable
Control L	Left Button Controller
Control R	Right Button Controller
Boom Cable	Boom Cable
Power 24VDC	Power Cable / Emergency Stop Button / Door / Chair Switch Cable

7. WARRANTY

We grant a 12-month warranty for the control devices we manufacture. The warranty period starts from the moment the device is delivered from the factory.

The warranty covers raw material and manufacturing defects as well as work to rectify the defect at the factory. The manufacturer does not reimburse the costs of removing, attaching, delivering the device for repair and returning it to the customer.

Warranty repairs are made at Logmit Ab's premises in Pietarsaari in Finland.

The manufacturer is not liable for any damage caused to the environment or other equipment by the defective device / software and does not compensate for any loss of earnings.

The warranty is void if the device is modified or otherwise used contrary to the manufacturer's instructions.

In order for the warranty to remain valid, the manufacturer must be notified immediately, ie within three (3) days, of the occurrence of the defect.

Parts replaced or repaired during the warranty period will expire at the end of the original warranty period.

8. CONTACT US

Logmit Ab wants to serve its customers as well as possible.

If you have any questions about our product or services, you can reach us in the following ways.

8.1. Website

www.logmit.fi

Our company website is available 24 hours a day. Check out the Products and Support sections in particular. The latest version of the Instructions for Use and Safety can be downloaded from our website.

8.2. Logmit Mobile Application

You can download Logmit Mobile Application from the app store on your device. You can easily find your instructions, manuals and contact information in the application.

8.3. E-mail

If you wish, you can send us a free-form message by e-mail to info@logmit.fi

8.4. Phone

Of course, we also serve by phone. You can contact your own reseller or us directly. Contact information for resellers can be found on our website.

You can reach us at +358 50 5947 642.

8.5. Address

Letter Mail, Warranty Returns and the like must be sent with the following contact details:

Logmit Ab Oy
Korpintie 3
FI-68660 Pietarsaari
FINLAND